

**REMARKS**

Applicants and the undersigned are most grateful for the time and effort accorded the instant application by the Examiner.

An interview was conducted on June 6, 2006, between the Examiner, the undersigned, and the first named inventor. The novelty of the presently claimed invention when compared to the prior art was discussed. A tentative agreement was reached as to the patentability of the present claims over the cited art, wherein the results of comparative experimentation related to the basis for the present obviousness rejections and demonstrating unexpected results would be formally submitted into the record via an executed declaration. A declaration is being submitted herewith.

Claims 1-28 were pending in the instant application at the time of the outstanding Office Action. Of these claims, Claims 8, 10-18, and 21-28 were under consideration pursuant to a previous withdrawal of the remaining claims in response to the Office's Restriction Requirement.

Applicants have amended Claims 8, 21, and 22. Applicants respectfully submit no new matter has been added by the present amendment and support for the amendment can be found generally throughout the text. Moreover, Applicants intend no change in the scope of the claims by the changes made by this amendment. It should be noted this amendment is not in acquiescence of the Office's position on the allowability of the claims, but merely to expedite prosecution.

It is also respectfully submitted the presently claimed embodiment of the invention is patentably distinct over the cited present art; therefore, the Office is respectfully requested to reconsider the rejections presented in the outstanding Office Action in light of the following remarks.

**Objection to Informalities**

The Specification is objected to as failing to provide a description of the drawing. Applicants have amended the Specification to include, *inter alia*, a sectional heading and brief description of the drawing in accord with present practice and therefore request withdrawal of this objection.

**Claim Rejection - 35 U.S.C. § 103(a)**

Claims 8, 10-18 and 21-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ostoja-Starzewski, et al. (U.S. Patent No. 6,353,064). The Applicants' previous remarks remain applicable to the present rejections and are incorporated by reference as if the same were fully set forth herein.

As the learned Examiner is aware, "in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claims limitations. The teachings or suggestions to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicants' disclosure." (MPEP § 2142, citing In re Vaeck, 947 F.2d 488, 20 USPQ 2d. 1438 (Fed. Cir. 1991))

As indicated by the Office

[I]t would have been obvious to a skilled artisan at the time the invention was made to employ Ostoja's teaching to conduct olefin polymerization in the similar conditions as shown [in] the working examples by replacing the metallocene complex with the metallocene complex (Ia) wherein CpI or CpII of formula (Ia) to be fluorenyl and acceptor group to be alkylboranyl or arylboranyl and adding aluminoxane as the activator to provide a polymer with increased molecular weight since such within the scope of Ostoja's

teaching and expected to work and in the absence of any showing of critically and unexpected results.

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Experiments have been conducted in which an MAO co-catalyst was added to the polymerization reactions similar to those performed in the examples set forth in the cited reference. The results reveal that the addition of MAO does not increase the respective polymer's molecular weight, but instead actually decreases the resulting molecular weight. (As indicated above, an executed declaration summarizing these results is being submitted herewith for the Office's consideration.)

For instance, experiments demonstrate that the donor-acceptor metallocene in Example 1 of Ostoja-Starzewski, et al., 6,353,064, which produced a high density polyethylene (HDPE) with a viscosity average molecular weight of 402 kg/mol, produces in the presence of MAO a polyethylene having a viscosity average molecular weight of only 214 kg/mol. In stark contrast, the present inventive Example 8, where due to the improved metallocene structure an UHMw-PE is produced having a viscosity average molecular weight of 2244 kg/mol. The other experiments, set forth in the Declaration and in the Applicants' previous response, clearly show the same trend when MAO is added to various other acceptor-donor metallocenes.

In light of these experimental results, Applicants' respectfully submit that not only is there lacking an expectation of success and/or motivation to add an MAO co-catalyst to the referenced donor-acceptor metallocenes for the polymerize of high mean viscosity molecular weight polymers, actually adding an MAO co-catalyst to the polymerization reactions produces low mean viscosity molecular weight polymers. Therefore it is respectfully submitted the presently claimed invention is not obvious over the cited art and is immediately allowable.

By virtue of dependence from what are believed to be allowable independent Claims 8, 21, and 22, it is respectfully submitted that Claims 10-18, 23-26, and 27-28 are also presently allowable.

In summary, it is respectfully submitted that the instant application, including Claims 8, 10-18, and 21-28, is presently in condition for allowance. Notice to the effect is earnestly solicited. If there are any further issues in this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

By 

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**APPENDIX**